## SUBSTITUTE SPECIFICATION (MARKED UP COPY)

#### VERBENA PLANT NAMED 'SUNMARIBAGADI'

Botanical/commercial classification:

Verbena hybrida Verbena Plant

Varietal denomination: ev. '[[s]]Sunmaribagadi'

#### **BACKGROUND OF THE VARIETY**

The present invention relates to a new variety of Verbena plant, named 'Sunmaribagadi' that originated from open-pollination of a Verbena hybrid variety called 'H116-1', named 'Sunmaribagadi (unpatented).

The Verbena is a very popular plant and is used for flower bedding and potting in the summer season. There are only a few varieties of Verbena plants having a decumbent growth habit, abundant branching, many flowers in a cluster, and a high resistance to heat, rain, and disease. Accordingly, this invention was aimed at obtaining a new variety having a decumbent growth habit, much branching, many dark reddish purple flowers in a spike, high tolerance to heat and rain, and resistance to disease and pests.

#### **Progress**

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The female parent 'H116-1' (unpatented) used in the open-pollination of 'Sunmaribagadi' is a strain of our breeding lines, having decumbent growth habit with long stems. It forms abundant clusters of attractive purplish red blossoms. The stem of 'H116-1' is longer than that of 'Sunmaribagadi' and the petal color of 'H116-1' is purplish red, while that of 'Sunmaribagadi' is dark purple-red.

In October 2000, 50 seedlings were obtained from the natural crosses of Verbena variety called 'H116-1' and were grown in a controlled environment at Yokaichi-shi, Shiga-ken, Japan. These seedlings were grown in pots in glasshouses and were evaluated for evaluation. One seedling was selected in view of its growth habit and flower color in October 2001. That seedling was propagated by cutting and a trial was carried out by flower potting and bedding from April to

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October 2002. The botanical characteristics of that plant were then examined, using similar varieties 'Sunmariwaba' (U.S. Plant Patent[[.]] No. 11,104) and 'Sunmariro' (U.S. Plant Patent No. 14,306) for comparison. As a result, it was concluded that this Verbena plant is distinguishable from any other variety, whose existence is known to us, and uniform and stable in its characteristics. Then the new variety of Verbena plant was named 'Sunmaribagadi'.

In the following description, the color-cordingcoding is in accordance with the Horticultural Colour Chart of The Royal Horticultural Society, London, England (R.H.S.-Colour Chart).

#### SUMMARY OF THE VARIETY

This new variety is unlike any <u>commercially available</u> Verbena <del>commercially</del> available variety known to us as evidenced by the following unique combinations of characteristics.

- 1. Decumbent growth habit with abundant branching.
- 2. Plentiful number of flowers in a spike having great profusion of blooms with the entire plant remaining in bloom for a considerable period of time.
  - 3. Long flowering duration.
  - 4. The petal color is dark purplish red (near R.H.S. 59A).
  - 5. The plant has a high resistance to rain, heat, disease and pests.

The new variety 'Sunmaribagadi' differs from the similar variety 'Sunmariwaba' in the following points.

- 1. The plant height of 'Sunmaribagadi' is higher than that of 'Sunmariwaba'.
- 2. The internode length of 'Sunmaribagadi' is shorter than that of 'Sunmariwaba'.
  - 3. The leaf of 'Sunmaribagadi' is narrower than that of 'Sunmariwaba'.
  - 4. The spike length of 'Sunmaribagadi' is shorter than that of 'Sunmariwaba'.

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- 5. The flower color of 'Sunmaribagadi' is dark purplish red (<u>near\_R.H.S.</u> 59A), while that. That of 'Sunmariwaba' is strong purplish red (<u>near\_R.H.S.</u> 71A) with a small eye.
  - 6. The calyx of 'Sunmaribagadi' is shorter than that of 'Sunmariwaba'.

The new variety 'Sunmaribagadi' differs from the similar variety 'Sunmariro' in the following points.

- 1. The plant size of 'Sunmaribagadi' is more compact than that of 'Sunmariro'.
- 2. The internode length of 'Sunmaribagadi' is shorter than that of 'Sunmariro'.
  - 3. The leaf of 'Sunmaribagadi' is narrower than that of 'Sunmariro'.
  - 4. The spike length of 'Sunmaribagadi' is shorter than that of 'Sunmariro'.
- 5. The flower color of 'Sunmaribagadi' is dark purplish red (<u>near R.H.S. 59A</u>). That of, while 'Sunmariro' is vivid red (<u>near R.H.S. 77B</u>).

This new variety of Verbena Plantplant 'Sunmaribagadi' was asexually reproduced by the use of cuttings at Yokaichi-shi, Shiga-ken, Japan, and the homogeneity and stability thereof were confirmed. The instant plant retains its distinctive characteristics and reproduces true to type in successive generations.

### BRIEF DESCRIPTION OF THE PHOTOGRAPH

The depicted plants had been reproduced by the use of cuttings and were photographed during April 2003 while growing outdoors in 30 cm pots at an age of approximately 6 months at Yokaichi-shi, Shiga-ken, Japan.

- FIG. 1 illustrates a typical plant of the new variety of Verbena plant 'Sunmaribagadi'.
- FIG. 2 illustrates a close view of typical blossoms of the new variety of Verbena plant 'Sunmaribagadi'.

#### **DESCRIPTION OF THE VARIETY**

The botanical characteristics of the new and distinct variety of Verbena plant named 'Sunmaribagadi' are as follows when observed during October at Yokaichishi, Shiga-ken, Japan, at an age of 6 months.

5 Plant:

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Growth habit.-- Decumbent.

Plant width.-- Approximately 60-70 cm.

Plant height.-- Approximately 26 cm.

Stem:

Diameter.-- Approximately 2.0-3.0 mm.

Anthocyanin pigmentation.-- Absent.

Pubescence.-- Dense.

Prickles .-- Absent.

Branching.-- Abundant.

Subterranean stem.-- Absent.

Length of internode.-- Approximately 1.4-2.5 cm.

Leaf:

Phyllotaxis.-- Opposite.

Shape of blade.-- Hastate.

20 Apex shape.-- Obtuse.

Base shape.-- Truncate.

Margin.-- Serrate.

Depth of blade incision.-- Shallow.

Length.-- Approximately 2.5-2.8 cm.

Width.-- Approximately 1.0-1.3 cm.

Color.-- Adaxial side: Near R.H.S. 137A (Dark olive green); Abaxial side:

Near R.H.S. 144B.

Pubescence.-- Dense.

Petiole.-- Absent.

#### Flower:

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Shape of cluster .-- Obconical.

Cluster length.-- Approximately 1.7-2.7 cm.

Cluster diameter.-- Approximately 3.9-5.0 cm.

Facing direction.-- Upward.

Floret diameter.-- Approximately 1.5-1.7 cm.

Floret length.-- Approximately 1.7-1.9 cm.

Color of petal.-- Adaxial side: Near R.H.S. 59A (Dark purplish red); Abaxial

### side: Near R.H.S. 59C.

10 Eye color.-- Absent.

Variegation.-- Absent.

Petal apex.-- Emarginate.

Number of petals.-- Generally 5.

Calyx length.-- Approximately 0.8-1.0 cm.

15 Calyx shape.-- Tubular. Sepals <u>haveing</u> an acute apex in<u>and are</u> fused at the base.

Reproductive organs.-- 1 pistil and 4 stamens.

Pistil shape.-- Bifid.

Anther color.-- Near R.H.S. 1B (Yellow green).

Filament color.-- <u>Near</u> R.H.S. 1B (Yellow green).

Pollen.-- Present in a moderate quantity, color near R.H.S. 11D.

Stigma color.-- Near R.H.S. 4D.

Style color.-- Near R.H.S. 144B.

Ovaries.-- Commonly four in number.

25 Peduncle diameter.-- Approximately 1.5-2.0 mm.

Peduncle length.-- Approximately 1.0-3.0 cm.

Peduncle color.-- Near R.H.S. 137C.

Number of flowers.-- Approximately 17.

Flower fragrance.-- Absent.

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Flowering time.-- Early.
Flowering period.-- April to November in the southern Kanto area, Japan.

The plant shape does not change throughout this period. A typical flower commonly lasts 5 to 7 days on the plant when experiencing a temperature of approximately 20°C.

Fruit and seed. -- Fruit and seed production has not been observed.

Physiological and ecological characteristics:

Tolerance to cold.-- Medium.

Tolerance to heat.-- High.

Resistance to disease.-- High.

Resistance to pests.-- High.

Winter Hardiness. -- USDA Hardiness Zone 4-9 (Grown as perennial).

Heat tolerance. -- The plant grows well at temperatures up to at least 35°C.

Disease and pest resistance. -- Resistant to powdery mildew. No serious damage by pathogens and pests common to Verbena has been observed.

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It is claimed:

A new and distinct variety of Verbena plant named 'Sunmaribagadi', substantially as herein illustrated and described.

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# VERBENA PLANT NAMED 'SUNMARIBAGADI' ABSTRACT OF THE DISCLOSURE

Disclosed herein is a new and distinct variety of Verbena plant having a decumbent growth habit. The Verbena plant has abundant branching, the whole plant remaining in bloom for a considerable period of time. The flowers are formed in profusion in a cluster and the petals display a dark purplish red color. The blooming period is from April to November, and the flowering duration is long. The plant exhibits high tolerance to heat, and high resistance to rain, pests and disease, particularly powdery mildew.